

BLOOD GROUP ANTIGEN TESTS

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In 1913, Koch-Grünberg³ had observed that Yanoama was different from Cariban and that it apparently represented an isolated language. While this opinion was shared by the majority of authors who subsequently referred to the language, two American linguists have recently broken with this tradition by forwarding suggestions of possible affiliations. Greenberg⁴ classified "Shiriana" as a distinct group belonging to the "Chichan proper," subfamily of the "Macro-Chichan" family, and Swadesh⁵ established a "Macro-Siriana" with an internal separation of 30 mc, including Chapacura (27 mc), and Siriana (21 mc). He later suggested (personal communication) that Waraoan should also be reckoned in "Macro-Siriana," which would increase the internal divergence of this micro-phytum to that of 72 mc. Since the latter suggestion is of major interest to the distribution of the Diego antigen, we shall return to the discussion of the same after having presented the material on the Waica blood groups.

Cultural aspects. The Yanoama are a semi-nomadic forest people who rely for their subsistence chiefly on hunting, gathering, and arboriculture. Fishing is of a very subordinate importance and only peripheral groups, such as the northern Sanemá, have adopted agriculture from neighboring tribes. Although arboriculture is of vital importance among most of the Yanoama subtribes (plantains [*Musa paradisiaca normalis*], and pupunha [*Guilielma garipae*]), there can be little doubt that the basic economic and cultural pattern of the Yanoama has remained essentially on a Paleo-Indian culture level of the early hunting peoples of South America.

Yanoama technology is very little developed. The Waica produce thick-walled conical cooking pots, and Yanoama women make large twined carrying baskets. Cordage, belts, and one type of hammock are made of planted cotton, but weaving and metal work of any kind is unknown. Recently, several Yanoama groups have learned how to make dugout canoes, but their crafts and paddles still lack the perfection of the same artifacts among their masters (e.g. Caribs). Very long bows and arrows are the main weapons of these Indians, but stick-clubs may antedate the former.⁶

The local groups of the Yanoama are composed of bands of several extended families with nuclear family households. Residence rules have, as yet, not clearly been established, but judging from the Sanemá of the Erebato and from the

³ Koch-Grünberg, 1913, pp. 493-498.

⁴ Greenberg, 1954.

⁵ Swadesh, 1959, p. 28.

⁶ Only the Waica were reported to make pottery, and the planting of cotton is very recent.

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276 powder as it dries, the flat side of a stone axe⁸ serving as the grinding pestle. The dried,
 (412) green powder, no more than several tablespoons full, is then swept onto a leaf with a stiff feather. The men then gather around the leaf containing the drug, usually in the late afternoon, and take it by blowing the powder into each other's nostrils (see Fig. 2-3). A small quantity of the powder is introduced into the end of a hollow cane tube some 3 feet long. The tube is then flicked with the forefinger to scatter the powder along its length. One end of the tube is put into the nostril of the man taking the drug, and his helper then blows a strong blast of air through the other end, emitting his breath in such a fashion that he climaxes the delivery with a hard burst of air. Both the recipient and the blower squat on their haunches to do this. The man who had the drug blown into his nostrils grimaces, groans, chokes, coughs, holds his head from the pain of the air blast, and duck-waddles off to some leaning post. He usually receives two doses of the drug, one in each nostril. The recipient usually vomits, gets watery eyes, and develops a runny nose. Much of the drug comes back out in the nasal mucus that begins to run freely after the drug has been administered. Within minutes after the drug has been blown into a man's nose, he begins having difficulties focusing his eyes and starts to act intoxicated. The drug allegedly produces colored visions, especially around the periphery
 (187) of the visual field, and permits the user to enter into contact with his particular *hekuru*, miniature demons that dwell under rocks and on mountains. The man begins to chant to the *hekuru* when the drug takes effect, inviting them to come and live in his chest.

245 The Ynomamö also cultivate a tree, *hiuima*, that produces hallucinogenic seeds.
 276 These are prepared in exactly the same manner as the noncultivated drug.

322 TROUGHS AND CANOES The Ynomamö use the bark of another kind of tree
 • 396 to make a trough and a crude canoe, both of which are nearly identical in shape, size, and method of construction. The tree is beaten with clubs to loosen the bark. The bark is then removed in one piece and hauled back to the village. The ends are heated in a fire to make them pliable and folded back to make the ends of the container. They are held firm by lashing two sticks together, pinching the folded bark into a flat-nosed basin. The interior bark surface becomes the exterior surface of the soup container. If the container is to be used as a canoe, a crude framework of sticks is added to the inside, giving it more stability. The craft is so crude and heavy that the Ynomamö generally do not use it for any purpose other than the trip for which it was intended, usually a downstream trip, since it would be almost impossible to move against a current in this rough craft. It is easier to walk than to try to pole the canoe upstream. The canoe, hence, is usually discarded after it makes its maiden voyage. Another will be made when it is needed.

415 The container is pinioned to the ground with stakes if it is to be used as a soup
 574 trough. Each time a feast is held, one or more of these bark containers is made in front
 264 of the headman's house, filled with the boiled ripe plantain soup, and frequented by the hungry guests, who dip out the soup with gourd spoons. The trough is thrown on the village rubbish heap after the feast is over.

(192) ⁸They find the stone axes when they make new gardens, explaining that the spirits left them behind for the Ynomamö to use. This area was occupied in the distant past by tribes whose relationship to the present Ynomamö is uncertain.